ABSTRACT OF THE DISCLOSURE

An apparatus for containing and delivering hazardous gases at sub-atmospheric pressure from a pressurized container is provided which includes a valve body in sealed communication with an outlet orifice of the pressurized container. The outlet orifice of the pressurized container is open to an interior chamber of the pressurized container. A fluid discharge path is located in the valve body, between the outlet orifice of the pressurized container and an outlet orifice of the valve body. A pressure regulator having a pressure sensing means capable of responding to sub-atomospheric pressure, is integral to the valve body, in-line in the fluid discharge path with the pressure regulator pre-set to a pressure below atmospheric pressure to allow the gas to be delivered through the regulator from the interior chamber only when the pressure regulator senses a downstream pressure at or below the pre-set pressure. Finally, a high pressure shut-off valve integral to the valve body and in-line in the fluid discharge path and upstream from the pressure regulator is included. The gas flows through from the interior chamber of the pressurized container through the fluid discharge path, through the outlet orifice of the pressurized container, and through the outlet orifice of the valve body only when the outlet orifice is connected to a vacuum system. A method of containing and delivering hazardous gases at sub-atmospheric pressure is also provided.